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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,883	05/03/2001	David Allen Roberts	05918P2 USA	5807

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PATENT DEPARTMENT
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EXAMINER	
BOYD, JENNIFER A	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/847,883	ROBERTS ET AL.	
	Examiner	Art Unit	
	Jennifer A Boyd	1771	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-11,13-20,22-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-11,13-20,22 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Accompanying Remarks, filed July 22, 2004, have been entered and have been carefully considered. Claims 4 – 11, 13 – 20 and 22 – 23 are pending. In view of Applicant's submitted evidence that the presence of metals and ions would be detrimental to cleanroom wipers and would affect the basic and novel characteristics of the invention, the Examiner withdraws all previously set forth rejections as detailed in paragraphs 3 – 7 of the Office Action dated April 8, 2004. It should be noted that the Examiner is now construing the phrase "consisting essentially of" to exclude metals and ions. Despite these advances, the invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 4 – 11, 13 – 15, 17 – 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morin et al. (US 6,189,189) in view of Wilkinson et al. (EP 0830890 A1).

Morin is directed to a method of manufacturing low contaminant wipes (Title) useful as a cleanroom wipe (column 1, lines 55 – 68).

As to claim 23, Morin teaches a polyester fiber fabric (column 2, lines 55 – 65) which

may be presaturated with a desired solvent (column 7, lines 15 – 23). Morin teaches that the solvent can comprise water, organic solvents such as naphtha and aqueous solutions of water miscible organic solvents, in particular solutions of alcohols, such as C_1-C_8 alcohols and water (column 7, lines 20 – 25). Morin teaches that the wipers may contain a surfactant or other additives selected for their cleaning characteristics (column 7, lines 25 – 30).

As to claims 10 and 13 – 16, Morin teaches that the wiper may be constructed of woven or knitted polyester fibers (column 2, lines 53 – 56). Morin teaches that wipers are also typically made of non-woven polyester fabrics (column 1, lines 8 – 10). It should be noted that, according to Merriam-Webster Online Dictionary, a sponge is "a porous rubber or cellulose product used similarly to a sponge". Therefore, Morin's wipers of woven or knitted construction can be considered a "sponge".

As to claim 23, Morin fails to teach that the particular alcohol solution that can be used is an acetylenic diol. Morin fails to teach that the acetylenic diol is dimethyl octynediol as required by claim 8 or that the acetylenic diol is tetramethyl decynediol as required by claim 9. As to claim 11, Morin fails to teach that the acetylenic diol is selected from the group as listed in claim 11.

Wilkinson is directed to surfactants for use in liquid/supercritical CO_2 (Title) useful in applications such as electronic cleaning operations such as silicon wafer cleaning, etc. (page 5, lines 12 – 15). Wilkinson teaches a composition comprising CO_2/water mixtures with acetylenic diols (page 5, lines 33 – 36) such as 3,6-dimethyl-4-octyn-3,6-diol and 2,4,7,9-tetramethyl-5-decyn-4,7-diol (page 5, lines 5 – 11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the acetylenic diols of Wilkinson as the alcohol in Morin motivated by the desire to choose an alcohol suitable for applications such as electronic cleaning operations. It would be noted that both Wilkinson and Morin are concerned with cleaning products suitable for cleanroom type applications.

As to claims 4, 5 and 23, Morin in view of Wilkinson discloses the claimed invention except for that the acetylenic diol is present in the amount of 0.001% to 0.5% by weight as required by claim 23, is present in the amount of 0.01% to 0.3% by weight as required by claim 4 and is present in the amount of 0.05% to 0.2% by weight as required by claim 5. It should be noted that the amount of acetylenic diol is a result effective variable. For example, the cleaning ability of the diol is directly related to the amount present. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a wipe where the acetylenic diol is present in the amount of 0.001% to 0.5% by weight as required by claim 23, is present in the amount of 0.01% to 0.3% by weight as required by claim 4 and is present in the amount of 0.05% to 0.2% by weight as required by claim 5, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the amount of acetylenic diol to optimize the cleaning abilities of the wiper.

As to claim 6 and 7, although Morin in view of Wilkinson does not explicitly teach the claimed vapor pressure of at least 10^{-4} torr at 25°C as required by claim 6 and vapor pressure of

at least 10^{-3} torr at 25°C as required by claim 7, it is reasonable to presume that vapor pressure of at least 10^{-4} torr at 25°C as required by claim 6 and vapor pressure of at least 10^{-3} torr at 25°C as required by claim 7 is inherent to Morin in view of Wilkinson. Support for said presumption is found in the use of like materials (i.e. a cleaning composition that includes a nonionic surfactant and water), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of vapor pressure of at least 10^{-4} torr at 25°C as required by claim 6 and vapor pressure of at least 10^{-3} torr at 25°C as required by claim 7, it is reasonable to presume that vapor pressure of at least 10^{-4} torr at 25°C as required by claim 6 and vapor pressure of at least 10^{-3} torr at 25°C as required by claim 7 would obviously have been present Morin in view of Wilkinson product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claims 17 – 19, Morin in view of Wilkinson teaches that the water is present in the solvent. Although this does not necessary mean high purity, distilled or deionized water, it would have been obvious to one of ordinary skill to use high purity, distilled or deionized water because that would lower impurities and residue left behind by the cleaning solution.

4. Claims 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morin et al. (US 6,189,189) in view of Wilkinson et al. (EP 0830890 A1) and Watts et al. (EP 0389612 B1).

As to claim 20, Morin is directed to a method of manufacturing low contaminant wipes (Title) useful as a cleanroom wipe (column 1, lines 55 – 68). Morin teaches a polyester fiber fabric (column 2, lines 55 – 65) which may be presaturated with a desired solvent (column 7, lines 15 – 23). Morin teaches that the solvent can comprise water, organic solvents such as

naphtha and aqueous solutions of water miscible organic solvents, in particular solutions of alcohols, such as C_1-C_8 alcohols and water (column 7, lines 20 – 25). Morin teaches that the wipers may contain a surfactant or other additives selected for their cleaning characteristics (column 7, lines 25 – 30). Morin teaches that the wiper may be constructed of woven or knitted polyester fibers (column 2, lines 53 – 56). Morin teaches that wipers are also typically made of non-woven polyester fabrics (column 1, lines 8 – 10).

Morin fails to teach that the particular alcohol solution that can be used is an acetylenic diol such as tetramethyl decynediol or acetylenic diol.

Wilkinson is directed to surfactants for use in liquid/supercritical CO_2 (Title) useful in applications such as electronic cleaning operations such as silicon wafer cleaning, etc. (page 5, lines 12 – 15). Wilkinson teaches a composition comprising CO_2/water mixtures with acetylenic diols (page 5, lines 33 – 36) such as 3,6-dimethyl-4-octyn-3,6-diol and 2,4,7,9-tetramethyl-5-decyn-4,7-diol (page 5, lines 5 – 11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the acetylenic diols of Wilkinson as the alcohol in Morin motivated by the desire to choose an alcohol suitable for applications such as electronic cleaning operations. It would be noted that both Wilkinson and Morin are concerned with cleaning products suitable for cleanroom type applications.

Morin in view of Wilkinson teach that the woven fabric wipe can be made of polyester but fail to disclose that the wipe can also contain cellulose.

Watts is directed to a hydraulically entangled wet laid base sheet for wipers (Title) for use in applications such as micro-electronic clean rooms (page 2, lines 14 – 20). Watts teaches that cloth made solely from polyester may not be very absorptive while cloths made solely from natural fibers such as cotton have natural oils which may be undesirably deposited onto a wiped surface (page 2, lines 53 – 56). Watts teaches in Example 1 the use of a fabric comprising 50% hardwood pulp and 50% uncrimped polyester staple fiber (page 6, lines 15 – 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the wipe of Morin in view of Wilkinson with polyester and cotton as suggested by Watts motivated by the desire to optimize the wipe strength and absorbency.

As to claims 20 and 22, Morin in view of Wilkinson and Watts discloses the claimed invention except for that the acetylenic diol is present in the amount of 0.001% to 0.5% by weight as required by claim 20 and is present in the amount of 0.05% to 0.2% by weight as required by claim 22. It should be noted that the amount of acetylenic diol is a result effective variable. For example, the cleaning ability of the diol is directly related to the amount present. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a wipe where the acetylenic diol is present in the amount of 0.001% to 0.5% by weight as required by claim 20 and is present in the amount of 0.05% to 0.2% by weight as required by claim 22, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the amount of acetylenic diol to optimize the cleaning abilities of the wiper.

As to claim 20, although Morin in view of Wilkinson and Watts does not explicitly teach the claimed vapor pressure of at least 10^{-4} torr at 25°C, it is reasonable to presume that vapor pressure of at least 10^{-4} torr at 25°C is inherent to Morin in view of Wilkinson. Support for said presumption is found in the use of like materials (i.e. a cleaning composition that includes a nonionic surfactant and water), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of vapor pressure of at least 10^{-4} torr at 25°C, it is reasonable to presume that vapor pressure of at least 10^{-4} torr at 25°C would obviously have been present Morin in view of Wilkinson product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claim 20, Morin in view of Wilkinson and Watts teaches that the water is present in the solvent. Although this does not necessary mean high purity, distilled or deionized water, it would have been obvious to one of ordinary skill to use high purity, distilled or deionized water because that would lower impurities and residue left behind by the cleaning solution.

Response to Arguments

5. Applicant's arguments with respect to claims 4 – 11, 13 – 20 and 22 - 23 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Boyd
October 14, 2004

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